REMARKS

Claims 1-8 are pending in the above-identified application. Support for the change to claim 1 is found in paragraph [0030] at page 16 of the specification.

Request for Entry of Change to Claim 1

It is respectfully requested that the change to claim 1 be entered of record and considered by the Patent Examiner. Note that this change merely includes the deletion of one of the cover materials of the golf ball of the present invention. It is submitted that the deletion of polybutadiene rubber from one of the listed cover materials raises no new issues and at least places the claims into better form for consideration on appeal, should an appeal be necessary, since the deletion of this cover material provides a stronger basis for the distinctions between claim 1 and the cited reference discussed in more detail below. Consequently, it is requested that the present Reply be fully entered and considered by the Examiner pursuant to 37 C.F.R. 1.116.

Issues Under 35 U.S.C. 103(a)

Claims 1-8 have been rejected under 35 U.S.C. 103(a) as obvious over Ichikawa '883 (EP 1 068 883). This rejection is traversed for the following reasons.

Summary of Position of Examiner

The Final Office Action of February 22, 2005, basically concludes that because Ichikawa '883 employs materials that overlap with the materials used for the golf ball of the present invention, the "... maximum load values are also considered equivalent," i.e. the maximum load properties of the golf balls formed by the materials described in Ichikawa '883 would be equivalent to the maximum load properties recited in the present claims. It is further stated in the Final Office Action that, "Patentability is based on structure and not properties that are clearly possessed by the prior art and not disclosed. ... Simply stating that properties are not recognized is not sufficient."

Summary Response to Position of Examiner

Responsive to the above-noted points stated in the Final Office Action, it is first submitted that the comparative test results provided in the present specification clearly establish that, in addition to selecting the proper materials, the inventors of the present application have also selected the properties required for making the golf ball of the present invention from the disclosed materials. It is very clear that Ichikawa '883 includes materials which have properties that are disadvantageous and correspond to properties of the comparative examples (i.e. Comparative Example Nos. 1-8) which exhibit very poor scuff

resistance properties. Ichikawa '883 provides absolutely no basis for obtaining the selected, unexpectedly advantageous scuff resistance properties exhibited by the golf ball embodiments of the present invention (i.e. Example Nos. 1-9). Thus, there is no basis for asserting prima facie obviousness.

In addition to the above, it appears that the Final Office Action may be attempting to rely upon a theory that the properties of the golf ball materials of Ichikawa '883 "inherently" overlap with the properties of the golf ball embodiments of the present invention. However, as noted in MPEP 2163.07(a),

> To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted).

In the present situation, the Ichikawa '883 reference is, at best, a disclosure of a variety of materials which provide a "possibility" of attaining the selected maximum load properties employed in the golf ball of the present invention. This falls far short of establishing inherency.

It is additionally submitted for the reasons provided below that the present claims patentably define over Ichikawa '883.

Present Invention and Its Advantages

The golf ball of the present invention includes the following significant features: [i] a golf ball structure which includes at least a core and a cover; [ii] a cover formed from a material having a value of the maximum load of 1.5 to 3.0 kN at an impact energy of 47.3 J in penetration and impact fatigue tests; and [iii] a golf ball cover formed from one of the materials listed at the end of claim 1, such as a polyurethane-based thermoplastic elastomer, but excluding the rubber composition material polybutadiene rubber.

The technical meaning of limiting the value of the maximum load at an impact energy of 47.3 J in penetration and impact fatigue tests in the present invention is described in paragraphs [0002] to [0007] and [0013], particularly paragraph [0013] of the specification of the present application. The test method is described in paragraph [0055] and Figure 1. The value of the maximum load at an impact energy of 47.3 J in penetration and impact fatigue tests is a significant feature of the present invention.

As noted in the specification at paragraph [0013], the present inventors have carefully studied the circumstances surrounding the actual scuff phenomenon. The inventors have discovered that the scuff marks occur in the penetration mode, and they have studied penetration and impact fatigue properties. It became apparent that

the value of the maximum load in penetration and impact fatigue tests closely correlated with scuff resistance. As noted in the present specification, it is possible in some degree to improve the scuff resistance by using the cover material of Japanese Patent Kokai publication No. 102628/2000, or by using the cover material of Japanese Patent Kokai publication No. 299965/2001 to reduce the wear amount. However, even employing golf balls having these cover materials, poor scuff resistance properties would result because of the absence of any test or index specifically correlated to the scuff phenomenon. Therefore, the inventor of the present invention found that a golf ball having excellent scuff resistance was obtained by adjusting the value of the maximum load at an impact energy of 47.3 J in penetration and impact fatigue tests of the cover to a specified range. The inventor of the present invention also discovered that penetration mode, which is not tensile mode, was the most appropriate impact test, because the penetration mode most closely corresponded to the impact phenomenon when a golf ball was hit by an iron-type club.

The present invention exhibits unexpected, advantageous properties as evidenced by the comparative test results shown in Tables 1-7 at pages 22-32 of the specification. Note that Example Nos. 1-9 (present invention) all exhibit significantly and advantageously improved "scuff resistance" as compared to Comparative Example Nos. 1-8, even though the Comparative Examples

employ the same core structures/compositions and similar cover compositions having the same hardness and thickness properties. Consequently, unless the maximum load of at least 1.5 kN is satisfied, the advantageous properties of the golf ball of the present invention cannot be obtained.

Distinctions between Present Invention Ichikawa '883

Ichikawa '883 discloses a golf ball having a core **1** which is enclosed by one or more layers **2, 3**. At least one of the enclosure layers **2, 3** is formed of a rubber composition which includes as a base rubber cis-1,4-polybutadiene.

Ichikawa '883 fails to disclose or suggest the maximum load range of 1.5 - 3.0 kN as in the golf ball of the present invention. Ichikawa '883 further fails to disclose a golf ball having a cover formed from the materials listed at the end of present claim 1 which now excluded polybutadiene rubber, a cover material required by Ichikawa '883. Therefore, significant patentable distinctions exist between the present invention and Ichikawa '883. Therefore, Ichikawa '883 fails to support an allegation of prima facie obviousness, since the elements of the present claims fail to be found or suggested anywhere in Ichikawa '883 such that the basic requirement for a prima facie case of obviousness fails to be satisfied. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Ichikawa '883 additionally fails to recognize the advantages achieved by the present invention with respect to advantageously improved scuff resistance as evidenced by the comparative test results discussed above. Consequently, even assuming hypothetically that Ichikawa '883 supports a proper allegation of prima facie obviousness, such obviousness has been rebutted by these comparative test results. No objective evidence has been provided in support of any theory, such as an "inherency" theory, as noted above. Thus, it is submitted that the present claims patentably define over Ichikawa '883.

Conclusion

It is submitted for the reasons stated above that the present claims define patentable subject matter such that this application should now be placed condition for allowance.

If any questions arise regarding the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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